



PROGRESS REPORT NO. 149

TO: Monica Tonel, U.S. Environmental Protection Agency (EPA) – via Email
Kathryn Cerise, EPA – via Email

FROM: Kris McCaig, Teck American Incorporated (TAI)

Cc: Denise Mills, TAI – via Email

DATE: December 11, 2018

FILE NO: 01-773180-000

RE: Upper Columbia River (UCR) Remedial Investigation/Feasibility Study
(RI/FS) - Progress Report No. 149 Month Ending November 2018

Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Plant Tissue Study – Processing and analysis of samples collected during the August 2018 field sampling was completed during the month and TAI provided finalized laboratory reports and data validation summaries to our third party validator for validation. Validation was completed and TAI notified EPA via electronic mail on November 12, 2018 that the validation files were available for download to conduct their quality assurance review. TAI transmitted the final validated data with location information for all three sampling events to EPA via electronic mail on November 26, 2018. EPA provided a memo to TAI dated November 26, 2018 “Review of Data Validation Reports for Upper Columbia Basin Plant Tissue Study, Metals Analyses (August 2018 data)”.

Northern Pike Tissue Study – EPA provided the final Northern Pike Tissue Study Field Sampling Report to TAI via electronic mail on November 19, 2018. At the time of writing, TAI notified EPA on December 11, 2018 that the draft Northern Pike Tissue Study Data Summary Report would be delivered to EPA for review and comment on December 14, 2018.

Soil Amendment Technology Evaluation Study (SATES) – TAI continued coordination with the SATES team and Kira Lynch, Superfund Technology Liaison with the Office of Research and Development, Office of Science and Policy during the month. Work focused on planning SATES Phase II, which includes bench-scale evaluation of amendments. On

November 1, 2018, the technical team met to discuss the SATES Phase IB Memo and Phase II Bench-Scale Study. The discussion included preliminary concepts regarding proposed bench-scale design and soil amendment and amendment combinations. Early in the month, Mark Johnson of EPA's National Health and Environmental Effects Research Laboratory in Corvallis, Oregon conducted screening tests on biochar; metal extracts were shipped to the OSU laboratory on November 13, 2018 for metals quantification. On November 28, 2018, TAI's consultant Ramboll delivered to EPA, responses to CCC's comments on the Draft Data Summary Report for the Soil Amendment Technology Evaluation Study (SATES) Phase IA: Test Plot Selection and Characterization. CCC responded on November 29, 2018 indicating that the responses to CCC's comments resolved most of their concerns, with one remaining request for TAI to address their concern regarding some of the data qualifiers for some parameters in Table 4-8, which TAI expects to resolve in December.

Baseline Ecological Risk Assessment:

Soil Toxicity Reference Value – TAI delivered response to EPA comments and a revised approach summary to EPA on November 9, 2018.

Chemicals of Potential Concern (COPC) Refinement Document – TAI is in receipt of a letter dated November 20, 2018 from EPA with comments on the draft final COPC Refinement for Aquatic and Terrestrial Receptors and is reviewing and evaluating comments.

Phase 3 Sediment Study – TAI notified EPA via electronic mail on November 10, 2018 that due to safety concerns related to the weather, TAI and the field team decided to end the field program after that day's effort. TAI will finish the upper section above Deadman's Eddy area of interest (approximately five river miles) next year. TAI delivered a draft technical memorandum with results of the sediment freeze grab sampling pilot study for EPA review on November 9, 2018, a draft trip report for the benthic macroinvertebrate (BMI) field reconnaissance survey on November 21, 2018, and a draft technical memorandum with results of the porewater sampling pilot study on November 30, 2018. At the time of writing, EPA approved the draft BMI trip report and TAI submitted the final version to EPA via electronic mail on December 11, 2018.

Delineation Study – TAI continued work on developing of a draft protocol based on EPA's Air Modeling Protocol Outline for the Delineation Study. TAI is awaiting comments from EPA on the preliminary draft Data Quality Objectives for the delineation study delivered to EPA on September 27, 2018 for review and comment.

Human Health Risk Assessment (HHRA) – Conference calls were held during the month of November to continue discussion between EPA and TAI regarding further comments on EPA's preliminary draft river-associated baseline HHRA and the draft Recreational Use Survey and Tribal Use Survey data analysis reports. TAI submitted a technical memorandum to EPA titled "Follow-up Comments on the Pre-Draft River-Associated

Baseline Human Health Risk Assessment: Upper Columbia River Site, Dated June 29, 2018” via electronic mail on November 16, 2018.

Data Management Plan – TAI is awaiting comments from EPA on the draft final Data Management Plan Amendment No. 1 sent to EPA for review on October 25, 2018.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.